WHAT IS CLAIMED IS:

1. An analytical model preparing method comprising the steps of:

entering a shape model to be analyzed;

collating said shape model to be analyzed with at least one already prepared shape model stored in a memory unit; and

mapping the shape model to be analyzed with said already prepared shape model in accordance with the result of said collation, thereby preparing at least one analytical model corresponding to said shape model to be analyzed by use of preparing information of the analytical model registered in said memory unit.

2. An analytical model preparing method comprising the steps of:

entering a shape model to be analyzed;

collating said shape model to be analyzed with at least one already prepared shape model stored in a memory unit;

mapping the shape model to be analyzed with said already prepared shape model in accordance with the result of said collation, thereby preparing at least one analytical model corresponding to said shape model to be analyzed by use of preparing information of the analytical model

registered in said memory unit;

calculating an evaluation value of the mesh quality of at least one prepared analytical model, and displaying said value to select an optimum analytical model.

3.   An analytical model preparing method according to claim 2, comprising the steps of:

entering analytical model information showing information for analytical calculation; and

changing the manner of calculation of an evaluation value of mesh quality in accordance with the analytical model information.

4.   An analytical model preparing method comprising the steps of:

entering a shape model to be analyzed;

calculating a degree of approximation between said shape model to be analyzed and at least one already prepared shape model stored in a memory unit; and

mapping the shape model to be analyzed with said already prepared shape model in accordance with said degree of approximation, thereby preparing at least one analytical model corresponding to said shape model to be analyzed by use of preparing information of the analytical model registered in said memory unit.

5.   An analytical model preparing method comprising the steps of:

entering a shape model to be analyzed;

calculating a degree of approximation between said shape model to be analyzed and at least one already prepared shape model stored in a memory unit;

mapping the shape model to be analyzed with said already prepared shape model in accordance with said degree of approximation, thereby preparing at least one analytical model corresponding to said shape model to be analyzed by use of preparing information of the analytical model registered in said memory unit; and

calculating an evaluation value of the mesh quality of at least one prepared analytical model, and displaying said value to select an optimum analytical model.

6.   An analytical model preparing method according to claim 5, comprising the steps of:

entering analytical model information showing information for analytical calculation; and

changing the manner of calculation of an evaluation value of mesh quality in accordance with the analytical model information.

7. An analytical model preparing apparatus comprising:

means for entering a shape model to be analyzed;

a database which maps at least one already prepared shape model with an analytical model prepared for said already prepared shape model and registers the same;

means for collating said shape model to be analyzed with said at least one already prepared shape model; and

analytical model preparing means which prepares at least one analytical model corresponding to said shape model to be analyzed by use of preparing information of the analytical model prepared for said already prepared shape model in accordance with the result of collation.

8. An analytical model preparing apparatus comprising:

means for entering a shape model to be analyzed;

a database which maps at least one already prepared shape model with an analytical model prepared for said already prepared shape model and registers the same;

means for collating said shape model to be analyzed with said at least one already prepared shape model;

analytical model preparing means which prepares at least one analytical model corresponding to said shape model to be analyzed by use of preparing information of the analytical model prepared for said already prepared shape model in accordance with the result of collation; and

mesh quality evaluating means which calculates an evaluation value of mesh quality of the prepared analytical model corresponding to said at least one shape model to be analyzed.

9. An analytical model preparing apparatus according to claim 8, comprising:

an input/output unit which causes a user to select an analytical model for utilization by displaying at least one prepared analytical model corresponding to the shape model to be analyzed and a mesh quality evaluation value of the analytical model.

10. An analytical model preparing apparatus comprising:

means for entering a shape model to be analyzed;

a database which maps at least one already prepared shape model with an analytical model prepared for said already prepared shape model and registers the same;

means for collating said shape model to be analyzed with said at least one already prepared shape model;

analytical model preparing means which prepares at least one analytical model corresponding to said shape model to be analyzed by use of preparing information of the analytical model prepared for said already prepared shape

model in accordance with the result of collation;

mesh quality evaluating means which calculates an evaluation value of mesh quality of the prepared analytical model corresponding to said at least one shape model to be analyzed;

model input means for entering analytical model information showing information of analytical calculation together with the shape model to be analyzed; and

means for changing an evaluation value calculating formula of mesh quality in accordance with the entered analytical model information.

11.   An analytical model preparing apparatus according to claim 10, comprising:

an input/output unit which causes a user to select an analytical model for utilization by displaying at least one prepared analytical model corresponding to the shape model to be analyzed and a mesh quality evaluation value of the analytical model.

12.   An analytical model preparing apparatus comprising:

means for entering a shape model to be analyzed;

a database which maps at least one already prepared shape model with an analytical model prepared for said

already prepared shape model and registers the same;

degree of approximation calculating means for calculating a degree of approximation of said shape model to be analyzed with said at least one already prepared shape model; and

analytical model preparing means which prepares at least one analytical model corresponding to said shape model to be analyzed by use of preparing information of the analytical model prepared for said already prepared shape model in accordance with the degree of approximation.

13. An analytical model preparing apparatus comprising:

means for entering a shape model to be analyzed;

a database which maps at least one already prepared shape model with an analytical model prepared for said already prepared shape model and registers the same;

degree of approximation calculating means for calculating a degree of approximation of said shape model to be analyzed with said at least one already prepared shape model;

analytical model preparing means which prepares at least one analytical model corresponding to said shape model to be analyzed by use of preparing information of the analytical model prepared for said already prepared shape

model in accordance with the degree of approximation; and

mesh quality evaluating means which calculates an evaluation value of mesh quality of the prepared analytical model corresponding to said at least one shape model to be analyzed.

14. An analytical model preparing apparatus according to claim 13, comprising:

an input/output unit which causes a user to select an analytical model for utilization by displaying at least one prepared analytical model corresponding to the shape model to be analyzed and a mesh quality evaluation value of the analytical model.

15. An analytical model preparing apparatus comprising:

means for entering a shape model to be analyzed;

a database which maps at least one already prepared shape model with an analytical model prepared for said already prepared shape model and registers the same;

degree of approximation calculating means for calculating a degree of approximation of said shape model to be analyzed with said at least one already prepared shape model;

analytical model preparing means which prepares at

least one analytical model corresponding to said shape model to be analyzed by use of preparing information of the analytical model prepared for said already prepared shape model in accordance with the degree of approximation;

mesh quality evaluating means which calculates an evaluation value of mesh quality of the prepared analytical model corresponding to said at least one shape model to be analyzed;

model input means for entering analytical model information showing information for analytical calculation together with the shape model to be analyzed; and

means for changing an evaluation value calculating formula of mesh quality in accordance with the entered analytical model information.

16.   An analytical model preparing apparatus according to claim 15, comprising:

an input/output unit which causes a user to select an analytical model for utilization by displaying at least one prepared analytical model corresponding to the shape model to be analyzed and a mesh quality evaluation value of the analytical model.